

VERSION DESCRIPTION DOCUMENT FOR THE NASA EQUIPMENT MANAGEMENT SYSTEM (NEMS)

Release 6.5 Beta

NASA-NEMS-VDD-13

UNITeS Contract

December 3, 2004



National Aeronautics and
Space Administration

George C. Marshall Space Flight Center
Huntsville, AL 35812

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NASA EQUIPMENT MANAGEMENT SYSTEM (NEMS)
RELEASE 6.5 Beta**

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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
GEORGE C. MARSHALL SPACE FLIGHT CENTER
HUNTSVILLE, ALABAMA

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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
GEORGE C. MARSHALL SPACE FLIGHT CENTER
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1. INTRODUCTION

This Version Description Document (VDD) describes the changes and installation procedures for this release of the NASA Equipment Management System (NEMS). This section identifies the release, describes its purpose, defines its scope, and identifies its contact points.

1.1 IDENTIFICATION OF THE RELEASE

This software release is identified as NEMS, Release 6.5 and has an effective release date of December 3, 2004.

1.2 PURPOSE OF THE RELEASE

This release implements modifications for the following Change Control Requests (CCRs):

<u>CCR</u>	<u>Title</u>
409	Site Unique Reports on the PCM C69 Table
412	Problem with transaction C60
413	Transaction 15 does not remove transfer file records
414	Prevent Table S04 (Sequence Number) table lock
415	Make transaction I13 work like transaction 13
416	Make transaction I06 work like transaction 06
417	Add a warning message to transactions 06 and I06

This release implements modifications necessitated by the following Discrepancy Reports (DRs):

<u>CCR</u>	<u>Title</u>
	None

1.3 SCOPE

This VDD provides the functional and technical user of NEMS with information regarding the content, status, and structure of Release 6.5, including the following:

- Changes implemented since Release 6.4;
- Validation procedures to ensure the reliability of release changes;
- References to other documentation affected by this release;
- Detailed software installation instructions.

No waivers are associated with this release.

1.4 CONTACT POINTS

Sustaining Engineering for NEMS is provided through the Consolidation Center (CC) located at Marshall Space Flight Center (MSFC). Questions regarding the functional and/or the technical aspects as well as the installation of this release should be directed to:

The NACC Technical Services Center (Use following Key Words: SESAAS & NEMS)

Telephone: (256) 544-6673
Email: neal.cantrell@msfc.nasa.gov
FAX: (256) 544-1836

2. FUNCTIONAL INFORMATION

This section includes details regarding functional changes, functional interfaces, critical issues, affected documents, and application system administration.

2.1 FUNCTIONAL CHANGES

Please refer to Appendix C, Functional Change Validation Procedures, for a description of all functional changes related to this release. Appendix D, Installation Instructions, describes all Software PREDICT changes related to this release.

2.2 FUNCTIONAL INTERFACES

This section is not applicable for this release.

2.3 CRITICAL ISSUES

This section is not applicable for this release.

2.4 AFFECTED DOCUMENTS

The following documents were changed for this release:

None

2.5 APPLICATION SYSTEM ADMINISTRATION

There are no application system administration changes associated with this release.

3. TECHNICAL INFORMATION

This section includes details regarding technical system interfaces, data dictionary changes, software object changes, and database administration activities.

3.1 TECHNICAL SYSTEM INTERFACES

This section is not applicable with this release.

3.2 DATA DICTIONARY CHANGES

Refer to Appendix D, Section 4.0, for the data dictionary changes in this release.

3.3 SOFTWARE OBJECT CHANGES

Modules affected by this release are included in Appendix D, Section 2.2.

3.4 DATABASE ADMINISTRATION

This section describes the database administration activities for installation of this release.

3.4.1 Release Dataset Names

Refer to Appendix D, Introduction section, for the release dataset names.

3.4.2 Inventory of Objects

Refer to Appendix D, Section 2.1, for an inventory of Natural object types.

3.4.3 Storage Considerations

The changes represented by this release should not affect storage requirements.

3.4.4 Installation Procedures

Refer to Appendix D, Installation Instructions for NEMS Software Release 6.5 for detailed software installation procedures.

3.5 OPERATIONAL PREPARATION

Refer to the procedure described in Appendix D for assistance in preparing for proper installation and operational use of this release.

4. KNOWN AND OPEN PROBLEMS

There are no known or open problems related to this release.

.

APPENDIX A - ABBREVIATIONS AND ACRONYMS

CC	Consolidation Center
CCR	Change Control Request
DBA	Database Administrator
DR	Discrepancy Report
FAX	Electronic Facsimile Transmission
IRM	Information Resources Management
JCL	Job Control Language
MSFC	Marshall Space Flight Center
NACC	NASA Automated Data Processing (ADP) Consolidation Center
NASA	National Aeronautics and Space Administration
NEMS	NASA Equipment Management System
NPDMS	NASA Property Disposal Management System
PCM	Property Custodian Module
SESAAS	Sustaining Engineering Support for Agencywide Application Services
UNITeS	Unified NASA Information Technology Services
VDD	Version Description Document

APPENDIX B - GLOSSARY

Database Administration

Responsibility for maintaining the physical database environment.

Implementation

The process by which a NASA site installs a NASA software release and places it into operational use.

Operational Preparation

Preparation by a NASA site for installation and use of a NASA application release.

System Administration

Responsibility for administrative functions such as application security and table data maintenance associated with a NASA application.

APPENDIX C - FUNCTIONAL CHANGE VALIDATION PROCEDURES

Index of validation procedures for changes in this release:

Section	CCR	Title
1.0	409	<u>Site Unique Reports on the PCM C69 Table</u>
2.0	412	<u>Problem with transaction C60</u>
3.0	413	<u>Transaction 15 does not remove transfer file records</u>
4.0	414	<u>Prevent Table S04 (Sequence Number) table lock</u>
5.0	415	<u>Make transaction I13 work like transaction 13</u>
6.0	416	<u>Make transaction I06 work like transaction 06</u>
7.0	417	<u>Add a warning message to transactions 06 and I06</u>

Details for the validation procedures follow:

1.0 CCR 409 – SITE UNIQUE REPORTS ON THE PCM C69 TABLE

Site unique reports for other centers are available to give access to from table C69 - PCM User ID Authority table. The reports available for selection should be core and that center's site unique reports.

Description of Change

Code was changed to limit the PCM reports displayed to core reports and a center's site unique reports only.

Functional Impact

There is no functional impact as a result of this CCR.

Validation Procedures

- While updating the User ID Table (C69) in PCM try to give access to another center's site unique report.
Expected Results: The only reports that will be displayed and available for selection will be the Core reports and your center's site unique reports

<u>MODULE ID</u>	<u>MODULE NAME</u>	<u>TYPE</u>
<u>NEMSPCM</u>		
TBLC69P1	PCM User Authority Table Update	Program

2.0 CCR 412 – PROBLEM WITH TRANSACTION C60

An installation conveyor edit (error 566) in PCM transaction. C60 does not match NEMS transaction 60.

Description of Change

Changed code to enable edit 566 (Contractor Conveyor should not be entered) to be set correctly.

Functional Impact

There is no functional impact as a result of this CCR.

Validation Procedures

- Perform transaction C60 on an ECN that has a value in the Contractor Conveyor field and was not added by transaction 06.
Expected Results: Error Message “ERROR 566 – CONTRACTOR (CONVEYOR) SHOULD NOT BE ENTERED” will be displayed.

<u>MODULE ID</u>	<u>MODULE NAME</u>	<u>TYPE</u>
NEMSPCM PCM000L4 TRNC60P2	Change Transaction 60 (NASA Held Equipment Data Change)	LDA Program

3.0 CCR 413 – TRANSACTION 15 DOES NOT REMOVE TRANSFER FILE RECORDS

When a transaction 15 is processed to return an item that was deleted with a transfer transaction it does not remove the transfer file information that was created.

Description of Change

Code was changed to remove a transfer file record if present when performing a transaction 15.

Functional Impact

There is no functional impact as a result of this CCR.

Validation Procedures

- Perform a transaction 15 for an ECN that is present on the NEMS Transfer file.
Expected Results: After the transaction 15 has been completed the ECN will be removed from the NEMS Transfer file.

<u>MODULE ID</u>	<u>MODULE NAME</u>	<u>TYPE</u>
TRN015P1	Add Transaction 15 (Receipt from Return of Record from Historical file)	Program
NEMSINV TRN15P1	Add Transaction 15 (Receipt from Return of Record from Historical file)	Program

4.0 CCR 414 – PREVENT TABLE S04 (SEQUENCE NUMBER) TABLE LOCK

A FIND is performed on Table S04 (Sequence Number) Table to retrieve the next sequence number. This FIND could cause table S04 to be locked for all centers.

Description of Change

Code was changed to prevent Table S04 from receiving a table lock.

Functional Impact

There is no functional impact as a result of this CCR.

Validation Procedures

- Run the nightly batch cycle.
Expected Results: Batch cycle should complete successfully with no problems for table S04.

<u>MODULE ID</u>	<u>MODULE NAME</u>	<u>TYPE</u>
INVBBIS1	Bar Code Data Against Equipment File	Subprogram
INVBBIS4	Bar Code Data Against Equipment File	Subprogram

5.0 CCR 415 – MAKE TRANSACTION I13 WORK LIKE TRANSACTION 13

Transaction I13 does not pull data from another center's history file like transaction 13.

Description of Change

Code was changed to populate fields on the I13 add screen using values from another center's history file.

Functional Impact

There is no functional impact as a result of this CCR.

Validation Procedures

- Perform transaction I13 for an ECN that is an overage on your center's NEMS-BAR-CODE file and is present on another center's history file
Expected Results: Data fields will be populated with values from another center's NEMS-HISTORY file.

<u>MODULE ID</u>	<u>MODULE NAME</u>	<u>TYPE</u>
<u>NEMSINV</u> TRNI13P1	Add Transaction I13 (Receipt from Excess)	Program

6.0 CCR 416 – MAKE TRANSACTION I06 WORK LIKE TRANSACTION 06

Transaction I06 does not pull data from another center's history file like transaction 06.

Description of Change

Code was changed to populate fields on the I06 add screen using values from another center's history file.

Functional Impact

There is no functional impact as a result of this CCR.

Validation Procedures

- Perform transaction I06 for an ECN that is an overage on your center's NEMS-BAR-CODE file and is present on another center's history file
Expected Results: Data fields will be populated with values from another center's NEMS-HISTORY file.

<u>MODULE ID</u>	<u>MODULE NAME</u>	<u>TYPE</u>
<u>NEMSINV</u> TRNI06P1	Add Transaction I06 (Receipt by Transfer – From Contractor	Program

7.0 CCR 417 – ADD A WARNING MESSAGE FOR TRANSACTIONS 06 AND I06

If data is coming from another center's history file for an 06 or I06 transaction, the user should receive a warning to make sure they are processing the correct item.

Description of Change

Code was changed to display a warning message when performing either an 06 or I06 transaction and the data to populate the transaction screen is coming from another center's history file.

Functional Impact

There is no functional impact as a result of this CCR.

Validation Procedures

- Perform transaction 06 for an ECN that is present on another center's history file.
Expected Results: A warning message should be displayed indicating that the ECN is present on another center's history file.
- Perform transaction I06 for an ECN that is present on another center's history file.
Expected Results: A warning message should be displayed indicating that the ECN is present on another center's history file.

<u>MODULE ID</u>	<u>MODULE NAME</u>	<u>TYPE</u>
TRN000P1	Equipment File (Transaction) Update Menu	Program
TRN006P1	Add Transaction 06 (Receipt by Transfer-from Contractor)	Program
 <u>NEMSINV</u>		
TRNI06P1	Add Transaction I06 (Receipt by Transfer – From Contractor)	Program

APPENDIX D - INSTALLATION INSTRUCTIONS AND CHECKLIST FOR NEMS SOFTWARE RELEASE 6.5

Introduction

Release information:

System Name: NEMS
Release Number: 6.5
Release Date: December 3, 2004
Effective Date: Immediately

In case of installation problems, contact the NASA Automated Data Processing (ADP) Consolidation Center (NACC) Technical Services Center (Use following Key Words: SESAAS & NEMS)

Telephone: (256) 544-6673
Email: neal.cantrell@msfc.nasa.gov
FAX: (256) 544-1836

The following datasets are located on the transient storage DASD volumes under the following data sets names:

MSMOV.NEMS.BETA.R650.R1004.SRC

Where "xx" is replaced by the appropriate NASA Center designation.

AR - ARC
DF - DFRC
GS - GSFC
HQ - HQ
J5 - JSC
KS - KSC
LA - LaRC
LE - GRC (Glenn)
MS - MSFC
SS - SSC

Installation Sequence

The sequence in which the installation of this release should occur is provided in the following list. A checklist is provided in section 9.0 to assist in tracking the installation of this release.

- 1.0 Back Up Existing Data
- 2.0 Copy Source
- 3.0 Pre-Predict Data Conversion
- 4.0 Install Predict
- 5.0 Catalog Source Code
- 6.0 Post-Predict Data Conversion
- 7.0 Perform Release-Specific Procedures
- 8.0 Local JCL Mods
- 9.0 Installation Checklist

1.0 Back Up Existing Data

It is advisable to back up all NEMS files as a precautionary measure prior to installation.

2.0 Copy Source

This will be performed by SESAAS for the core modules. Any changes for site unique versions of these modules will be performed by the centers.

2.1 Copy Source Code

- A. Source code is installed in three separate libraries. Source code for programs modified in this release version were unloaded in the NATUNLD format; these programs all have specific destination libraries as shown below. All the NEMS programs have a destination of NEMS; NEMSINV programs have a destination of NEMSINV and NEMSPCM programs have a destination of NEMSPCM.

1. Load the NEMS source library from the dataset
MSMOV.NEMS.BETA.R650.R1004.SRC

The source programs were unloaded using the Natural utility NATUNLD. The NEMS programs:

1. INVBBIS1	Bar Code Data Against Equipment File	Subprogram
2. INVBBIS4	Bar Code Data Against Equipment File	Subprogram
3. NEMS	NEMS Start Program	Program
4. TRN000P1	Equipment File (Transaction) Update Menu	Program
5. TRN006P1	Add Transaction 06 (Receipt by Transfer-from Contractor)	Program

- | | | | |
|----|----------|---|---------|
| 6. | TRN015P1 | Add Transaction 15 (Receipt from Return of Record from Historical file) | Program |
|----|----------|---|---------|

will be loaded to the application library NEMS, replacing any existing programs of the same name.

2. Load the NEMSINV source library from the dataset:
MSMOV.NEMS.BETA.R650.R1004.SRC

The source programs were unloaded using the Natural utility NATUNLD. The NEMSINV programs:

- | | | | |
|----|----------|--|---------|
| 1. | NEMSINV | Inventory Start Up Program | Program |
| 2. | TRNI06P1 | Add Transaction I06 (Receipt by Transfer – From Contractor | Program |
| 3. | TRNI13P1 | Add Transaction I13 (Receipt from Excess) | Program |
| 4. | TRNI15P1 | Add Transaction I15 (Receipt from Return of Record from Historical file) | Program |

will be loaded to the application library NEMSINV, replacing any existing programs of the same name.

3. Load NEMSPCM source library from the dataset:
MSMOV.NEMS.BETA.R650.R1004.SRC

The source programs were unloaded using the Natural utility NATUNLD. The NEMSPCM Programs:

- | | | | |
|----|----------|---|---------|
| 1. | PCM000L4 | | LDA |
| 2. | PCMMAP | | Map |
| 3. | TBLC69P1 | PCM User Authority Table Update | Program |
| 4. | TRNC60P2 | Change Transaction 60 (NASA Held Equipment Data Change) | Program |

will be loaded to the application library NEMSPCM, replacing any existing programs of the same name.

The source module counts included in this release are listed below:

Natural Source Modules by Type	Count
GLOBAL DATA AREA	0
LOCAL/PARAM DATA AREA	1
MAPS	1
HELP ROUTINES	0
SUBROUTINES	0
SUBPROGRAMS	2
PROGRAMS	10
COPYCODE	0
TEXT	0
PROCESSOR	0
MISCELLANEOUS OBJECTS	0
Total:	14

2.2 List of Source Code Modifications

The following are the modules added, modified, and deleted.

Added Modules:

NEMS

None

INVENTORY

None

PCM

None

Modified Modules:

NEMS

1. INVBBIS1 Subprogram
2. INVBBIS4 Subprogram
3. NEMS Program
4. TRN000P1 Program
5. TRN006P1 Program
6. TRN015P1 Program

Inventory

7. NEMSINV	Program
8. TRNI06P1	Program
9. TRNI13P1	Program
10. TRNI15P1	Program

PCM

11. PCM000L4	LDA
12. PCMMAP	Map
13. TBLC69P	Program
14. TRNC60P2	Program

Deleted Modules:**NEMS**

None

Inventory

None

PCM

None

3.0 Pre-Predict Data Conversion

Not Applicable for this release.

4.0 Install Predict**4.1 Data Dictionary Changes**

Not Applicable for this release.

4.1.2 Storage Considerations

Not applicable with this release.

4.1.3 Physical File Changes

Not applicable for this release.

5.0 Catalog Source Code

To be performed by the SESAAS DBA.

Run a batch job to catalog (CATALL) all modules in the NEMS library using the NASA Batch Standard Parameters replacing the existing PS and LS with the following values: PS=23 and LS=80. It is not necessary to catalog the Global Data Area (GDA).

You should receive 35 NATURAL 0303 errors for modules that begin with RPT* that concern page overflow and 27 programs will produce NATURAL 0002 errors. There should be a total of 62 NATURAL errors.

A list of errors found above and dispositions of these results follows:

- To compile the NATURAL 0303 errors correctly, run another CATALL for the RPT* modules in the NEMS library using the NASA Batch Standard Parameters. You should receive 12 NATURAL 0002 errors. Ignore the 0002 errors because these objects are dynamic. You should also CATALL the JRNRPTP1 module using the NASA Batch Standard Parameters.
- The 27 NATURAL 0002 errors from the first CATALL are to be IGNORED because these objects are dynamic.

Run a batch job to catalog (CATALL) all modules in the NEMSINV library using the NASA Batch Standard Parameters. It is not necessary to catalog the Global Data Area (GDA). There should be no errors received.

Run an online catalog (CATALL) on module TRNI34P1 and TRNILOP3 to prevent problems with access to the second screen.

Run a batch job to catalog (CATALL) all modules in the NEMSPCM library using the NASA Batch Standard Parameters. It is not necessary to catalog the Global Data Area (GDA). There should be one NATURAL 0043 error received. See Section 9.0 Installation Checklist for instructions on how to correct these errors.

After all objects are compiled, the NEMS application will run under the NASA On-line Standard Parameters.

6.0 Post-Predict Data Conversion

Not Applicable for this release.

7.0 Perform Release-Specific Procedures

7.1 Add Error Messages to Table S02

```
G21    ** WARNING ** DATA IS FROM ANOTHER CENTER'S HISTORY FILE
G22    ENTER 'C' TO CANCEL AND VALIDATE ECN IS CORRECT
```

8.0 Local JCL Mods

Not Applicable for this release.

9.0 Installation Checklist

- 1.0 Back Up Existing Data
- 2.0 Copy Source
 - 2.1 Copy Source Code
 - 2.2 List of Source Code Modifications
- 3.0 Pre-Predict Data Conversion
- 4.0 Install Predict
 - 4.1 Data Dictionary Change
 - 4.1.1 Inventory of Objects
 - 4.1.2 Storage Considerations
 - 4.1.3 Physical File Changes
- 5.0 Catalog Source Code
- 6.0 Post-Predict Data Conversion
- 7.0 Perform Release-Specific Procedures
 - 7.1 Add Error Messages to Table S02
- 8.0 Local JCL Mods